

LISTIN OF THE CLAIMS

1. (Previously Presented) A method of managing flow of datagram traffic, the method comprising:

receiving datagrams from a first port of a first device at a first port of a second device using a pathway that is operably connected to a second port of the first device and a second port of the second device;

determining an individual port on the first device that is causing oversubscription of the first port of the second device;

transmitting a pause frame from the second device to the first device, the pause frame causing the individual port to pause transmission of the datagrams using the pathway, independently of a source address of the datagrams; and

receiving datagrams from a third port of the first device at the first port of the second device using the pathway, while the individual port on the first device is paused.

2. (Previously Presented) The method of claim 1, further comprising:

re-activating the individually paused port including transmitting a re-activation signal to the paused port.

3. (Previously Presented) The method of claim 1, further comprising:

re-activating the individually paused port pursuant to the detection of a condition wherein the first port of the second device has datagram traffic flowing therethrough in an amount that is below a lower trigger value.

4. (Previously Presented) The method of claim 1, further comprising:

re-activating the individually paused port pursuant to the passage of a pre-determined time increment.

5. (Previously Presented) The method of claim 1, wherein the transmitting the pause frame comprises using in-band control frames to pause the individual port.

6. (Previously Presented) The method of claim 1, wherein the transmitting the pause frame comprises using separate pathways between the first and second networked devices to transmit datagrams and control frames.

7. (Previously Presented) The method of claim 1, wherein the transmitting the pause frame comprises using a non-memory-consuming communication to pause the individual port.

8. (Previously Presented) The method of claim 1, wherein the transmitting the pause frame comprises referencing a listing of ports that are over-subscribed.

9. (Previously Presented) The method of claim 8, wherein the transmitting the pause frame comprises periodically updating the listing of ports that are over-subscribed.

10. (Previously Presented) The method of claim 1, wherein the determining comprises determining individual ports on devices other than the first and second device.

11. (Previously Presented) A method of managing flow of datagram traffic, the method comprising:

receiving datagrams from a first port of a first device at a first port of a second device using a pathway that is operably connected to a second port of the first device and a second port of the second device;

determining an individual port on the first device that is causing oversubscription of the first port of the second device;

signaling the first port of the first device to continue sending datagrams to the first port of the second device at a reduced rate, independently of a source address of the datagrams, and based on the determining when an over-subscription is detected at the first port of the second device; and

receiving datagrams from a third port of the first device at the first port of the second device using the pathway that is operably connected to the second port of the first device and the

second port of the second device, while continuing to receive the datagrams at the reduced rate from the first port of the first device at the first port of the second device.

12. (Previously Presented) The method of claim 11, wherein the signaling comprises signaling the first port of the first device to send datagrams in proportion to a total number of datagrams attempting to reach the first port of the second device.

13. (Previously Presented) The method of claim 11, wherein the signaling is performed using a non-memory-consuming communication to signal the first port of the first device.

14. (Previously Presented) The method of claim 11, wherein the signaling comprises broadcasting a signal that alerts ports on the network that the first port of the second device is over-subscribed.

15. (Previously Presented) The method of claim 11, wherein the receiving datagrams from a first port of a first device at a first port of a second device comprises referencing a listing of ports on the network that are over-subscribed before transferring a datagram between the first port of the first device to the first port of the second device.

16. (Previously Presented) The method of claim 11, further comprising:
resuming unrestricted datagram receipt at the first port of the second device including broadcasting a signal.

17. (Previously Presented) The method of claim 11, further comprising:
resuming unrestricted datagram receipt at the first port of the second device when a total number of datagrams attempting to reach the first port of the second device falls below a lower trigger value.

18. (Previously Presented) The method of claim 11, further comprising:

resuming unrestricted datagram receipt at the first port of the second device after passage of a pre-determined time increment.

19. (Previously Presented) The method of claim 11, wherein the signaling comprises using in-band control frames.

20. (Previously Presented) The method of claim 11, wherein the signaling comprises using a separate link to transmit control frames.

21. (Previously Presented) A communications device comprising:
a first communications means for receiving datagrams from a first port of a first data distribution means at a first port of a second data distribution means;
determining means for determining individual ports on the first data distribution means that cause oversubscription of the first port of the second data distribution means;
control means for selectively pausing the individual ports that are causing oversubscription of the first port of the second data distribution means, independently of a source address of the datagrams; and
means for receiving datagrams from a second port of the first data distribution means at the first port of the second data distribution means, while the individual ports are paused.

22. (Previously Presented) The device of claim 21 wherein the second data distribution means is connected to a second communications means that is non-lossy.

23. (Previously Presented) The device of claim 21, further comprising storage means for storing information concerning which ports in the network are over-subscribed.

24. (Previously Presented) A communications device comprising:
first communications means for receiving datagrams from a first port of a first data distribution means at a first port of a second data distribution means;

determining means for determining an individual port on the first data distribution means that is causing oversubscription of the first port of the second data distribution means;

control means for signaling the first port of the first data distribution means to send fewer datagrams to the first port of the second data distribution means, independently of a source address of the datagrams, and based on the determining; and

means for receiving datagrams from a second port of the first data distribution means at the first port of the second data distribution means, while continuing to receive datagrams from the first port of the first data distribution means at a reduced rate at the first port of the second data distribution means.

25. (Previously Presented) The device of claim 24, wherein the second data distribution means is attached to a second communications means that is non-lossy.

26. (Previously Presented) The device of claim 24, further comprising:
storage means for storing information concerning which ports in the network are over-subscribed.

27-30. (Cancelled)

31. (Previously Presented) A communications device comprising:
an interconnect port controller configured to receive datagrams from a first port of a first device at a first port of the device; and

a memory unit controller configured to determine, at the device, individual ports on the first device that cause oversubscription of the first port of the device, wherein

the interconnect portion controller is configured to selectively pause the individual ports of the first device that are causing oversubscription of the first port of the device, independently of a source address of the datagrams, and to receive datagrams from a second port of the first device at the first port of the device, while the individual ports are paused.

32. (Previously Presented) The device of claim 31, further comprising:

a memory unit configured to store information concerning which ports in the device are over-subscribed.

33. (Previously Presented) A communications device comprising:

an interconnect port controller configured to receive datagrams from a first port of a first device at a first port of the device; and

a memory unit controller configured to determine, at the device, individual ports on the first device that cause oversubscription of the first port of the device, wherein

the interconnect port controller is configured to signal the first port of the first device to continue sending datagrams to the first port of the second device at a reduced rate, independently of a source address of the datagrams, and based on the determining, and configured to receive fewer datagrams from the first port of the first device at the first port of the device.

34. (Previously Presented) The device of claim 33 further comprising:

a memory unit configured to store information concerning which ports in the network are over-subscribed.